OCEAN-BOTTOM SEISMIC INSTRUMENT POOLS

Announcement of Opportunity

DIVISION OF OCEAN SCIENCES

TARGET DATE: ***March 3, 1999***

NATIONAL SCIENCE FOUNDATION

INTRODUCTION

The academic community is addressing science questions (as described in the Future of Marine Geology and Geophysics (FUMAGES) report) requiring short- and long-term deployments of a large number of ocean-bottom seismometers and/or ocean-bottom hydrophones. To provide the large number of instruments needed, maintain the necessary technical capability, and enable access to the capability for the broad user community, the Marine Geology and Geophysics Program in the NSF Division of Ocean Sciences (OCE) invites proposals directed toward establishing Ocean-Bottom Seismic Instrument Pools (OBSIP).

PROGRAM DESCRIPTION

Instrument Pool

An NSF Ocean Sciences Instrument Pool is a facility that serves a broad community by operating, and providing access to, specialized data collection and/or analysis capabilities. The Pool provides technical support for the 'routine' operation of oceanographic instrumentation. Though it receives the majority of funding by supporting conventional research projects, a modest level of base funding may be provided during periods of low instrument utilization. Base funding will be used for system maintenance and improvements, but not for significant new technical development efforts.

Instrument Pools will maintain an appropriate balance of engineering, technical, and management personnel, including the necessary interface between the instruments and potential users unfamiliar with the instruments or the interplay between experimental design and data reduction.

Subject to availability of funds, it is expected that funding for the Instrument Pools may range up to $3M per year, depending on the number of field experiments conducted during the year. It is expected that approximately two such Pools may be established.

Criteria for Establishing Instrument Pools

The following general criteria are adopted for establishing Instrument Pools:

- There must be a well-established, broadly distributed 'user-community' (beyond the Pool's home institution) which, through consistent proposal pressure, proves the need for the instrument capability to conduct compelling science.

- Instrument(s) must support science at the forefront of the discipline with some certainty of a strong demand for at least 3-5 years.

- Instrument(s) must be developed to a 'design stability' level useful to researchers without substantial further technical innovation.

- The maintenance and operation of the instrument system requires a continuing technical infrastructure.

- Justification must be provided that 'project-only' support of the capability is inadequate.

- Formation of partnerships to support the Pools must be an objective of Pool management.

Funding of Instrument Pools

Operating expenses for Instrument Pools will be negotiated as part of a cooperative agreement between NSF and the institution(s) selected to operate the Instrument Pools. It is expected that operating budgets will be negotiated annually based on the number of field experiments to be conducted in the following calendar year.

For purposes of NSF review of individual science proposals, the Instrument Pool will prepare an informational budget to be included in the science proposal detailing Instrument Pool costs for the project. Funds for Instrument Pool services will go directly to the Instrument Pool via the cooperative agreement.

The instruments contained in the Pools may be obtained from existing inventories, from proposals submitted to NSF programs, (such as the Major Research Instrumentation Program) or from other agencies or industry. Major instrument design efforts may be proposed to the Ocean Technology and Interdisciplinary Coordination Program in the NSF Division of Ocean Sciences.

Oversight

One Oversight Committee to assess the Ocean Bottom Seismic Instrument Pools will be established by the Instrument Pools. Members of the Oversight Committee will be selected by the Instrument Pools and will be subject to approval by the cognizant NSF program

director. Funds for operation of the Oversight Committee will be included in the cooperative agreements.

The Oversight Committee will annually assess the appropriateness of staffing levels and budgets, the adequacy and responsiveness of service and instrumentation to the community, whether instrument developments are adequate to meet future needs, the quality of the data, and whether each Pool continues to meet the definition and criteria.

The Oversight Committee will prepare a report on each Instrument Pool, and the reports will be made public. The reports will also be used by NSF in evaluating the Pools.

Other Responsibilities of Instrument Pools

OBSIPs will submit an annual progress report to the Oversight Committee and NSF.

1. In compliance with the NSF/OCE data policy, data collected by the OBSIPs will go to a data center to be identified in the cooperative agreement within two years of collection. Submission of data will be the responsibility of the grantee institution of the principal investigator of the science project. The OBSIPs will provide the data to principal investigators in a format suitable for submission to the data center, and monitor compliance with this requirement.

2. Advances in instrument development will be shared with other Pools through the timely publication of technical reports.

PROPOSAL PREPARATION & SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions.

Proposals submitted in response to this program announcement should be prepared and submitted in accordance with the general guidelines contained in the Grant Proposal Guide (GPG), NSF 99-2. The complete text of the GPG (including electronic forms) is available electronically on the NSF Web site at: http://www.nsf.gov/. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone 301.947.2722 or by e-mail from pubs@nsf.gov.

Proposers are reminded to identify the announcement number in the program announcement/solicitation block on the NSF Form 1207, *"Cover Sheet for Proposal to the National Science Foundation."* Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

Proposals submitted in response to this announcement should address costs and operations for a 36 month period. Proposals should include:

1. A discussion of the projected community science over the next few years, and the mix of instruments required.

2. The number and types of ocean-bottom seismic instruments the proponent would operate, including technical specifications for the instruments and plans to acquire new instruments.

3. Past performance of the instruments, if any, including a history of "outside" use.

4. Estimated cost of deploying each type of instrument for typical deployment durations.

5. Details of expected Pool costs based on zero to four field experiments per year, using combinations of active and long-term passive experiments.

6. Details of the total Pool support, including funding from other sources.

7. Details of the personnel involved in operating the Instrument Pool and their roles.

8. A statement of how instruments will be made available to the community and services provided to users.

9. A statement of procedures for establishing the Oversight Committee.

B. Budgetary Information

Cost Sharing Requirements.

NSF encourages, but does not require, organizations responding to this announcement to contribute to the costs of the project supported by NSF. While cost-sharing will not be considered in evaluating proposals, cost-sharing specified in the proposal will be referenced and included as a condition of any award resulting from this announcement. Proposed cost sharing should be entered on Line M of the proposal budget (NSF Form 1030).

The amount of cost sharing must be shown in the proposal in enough detail to allow NSF to determine its

impact on the proposed project. Documentation of availability of cost sharing must be included in the proposal.

Only items which would be allowable under the applicable cost principles, if charged to the project, may be included as the granteeís contribution to cost sharing. Contributions may be made from any non-Federal source, including non-Federal grants or contracts, and may be cash or in-kind (see OMB Circular A-110, Section 23). It should be noted that contributions counted as cost-sharing toward projects of another Federal agency may not be counted towards meeting the specific cost-sharing requirements of the NSF grant.

All cost-sharing amounts are subject to audit. Failure to provide the level of cost-sharing reflected in the approved grant budget may result in termination of the NSF grant, disallowance of grant costs and/or refund of grant funds to NSF.

C. Proposal Due Dates.

For paper submission of proposals, the paper copies should be submitted to the March 3, 1999 target date. Copies of the proposal must be made and submitted to NSF according to the normal procedures for paper proposals identified in the GPG.

For electronic submission of proposals, the proposal should be submitted to the March 3, 1999 target date. Copies of the signed proposal cover sheet must be submitted in accordance with the instructions identified below.

Submission of Signed Cover Sheets. For proposals submitted electronically via the NSF FastLane Project, the signed proposal Cover Sheet (NSF Form 1207) should be forwarded to the following address and received by NSF by March 3, 1999:

National Science Foundation
DIS-FastLane Cover Sheet
4201 Wilson Blvd.
Arlington, VA 22230

A proposal may not be processed until the complete proposal (including signed Cover Sheet) has been received by NSF.

D. FastLane Requirements.

The NSF FastLane system is available for electronic preparation and submission of a proposal through the Web at the FastLane Web site at: http://www.fastlane.nsf.gov. The Sponsored Research Office (SRO or equivalent) must provide a FastLane Personal Identification Number (PIN) to each Principal Investigator (PI) to gain access to the FastLane "Proposal Preparation" application. PIs that have not submitted a proposal to NSF in the past must contact their SRO to be added to the NSF PI database. This should be done as soon as the decision to prepare a proposal is made.
In order to use NSF FastLane to prepare and submit a proposal, the following are required:

Browser (must support multiple buttons and file upload)

- Netscape 3.0 or greater
- Microsoft Internet Explorer 4.0 or greater

PDF Reader (needed to view/print forms)

- Adobe Reader 3.0 or greater

PDF Generator (needed to create project description)

- Adobe Acrobat 3.01 or greater
- Aladdin Ghostscript 5.10 or greater

A list of registered institutions and the FastLane registration form are located on the FastLane Web page.

For paper submission of proposals, the delivery address must clearly identify the NSF announcement or solicitation number under which the proposal is being submitted.

PROPOSAL REVIEW INFORMATION

A. Merit Review Criteria.

Review of proposals submitted to NSF are solicited from peers with expertise in the substantive area of the proposed research or education project. These reviewers are selected by Program officers charged with the oversight of the review process. NSF invites the proposer to suggest at the time of submission, the names of appropriate or inappropriate reviewers. Special care is taken to ensure that reviewers have no immediate and obvious conflicts with the proposer. Special efforts are made to recruit reviewers from non-academic institutions, minority serving institutions, adjacent disciplines to that principally addressed in the proposal, etc.

Proposals will be reviewed against the following general merit review criteria established by the National Science Board. Following each criterion are potential considerations that the reviewer may employ in the evaluation. These are suggestions and not all will apply to any given proposal. Each reviewer will be asked to address only those that are relevant to the proposal and for which he/she is qualified to make judgments.

What is the intellectual merit of the proposed activity?

How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of prior work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

What are the broader impacts of the proposed activity?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learner perspectives. PIs should address this issue in their proposal to provide reviewers with the information necessary to respond fully to both NSF merit review criteria. NSF staff will give it careful consideration in making funding decisions.

Integrating Diversity into NSF Program, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports. PIs should address this issue in their proposal to provide reviewers with the information necessary to respond fully to both NSF merit review criteria. NSF staff will give it careful consideration in making funding decisions.

B. Merit Review Process and Associated Customer Service Standard.

Most the proposals submitted to NSF are reviewed by mail review, panel review, or some combination of mail and panel review.

All proposals are carefully reviewed by at least three other persons outside NSF who are experts in the particular field represented by the proposal. Reviewers will be asked to formulate a recommendation to either support or decline each proposal. A program officer assigned to manage the proposalís review will consider the advice of reviewers and will formulate a recommendation. In most cases, proposers will be contacted by the program officer after his or her recommendation to award or decline funding has been approved by his or her supervisor, the division director. This informal notification is not a guarantee of an eventual award. NSF will be able to tell applicants whether their proposals have been declined or recommended for funding within six months for 95 percent of proposals in this category. In those cases where a proposal is being considered for joint funding by separate divisions, directorates, or agencies, NSF will be able to applicants within nine months in 95 percent of proposals. The time interval begins on the proposal deadline or target date or from the date of receipt, if deadlines or target dates are not used by the program. The interval ends when the division director accepts the program officerís recommendation.

In all cases, after final programmatic approval has been obtained, the recommendation then goes to the Division of Grants and Agreements for review of business, financial and policy implications and the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with an NSF program officer. A principal investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants Officer does so at its own risk.

AWARD ADMINISTRATION INFORMATION

A. Notification of the Award.

Notification of the award is made to the submitting organization by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the

cognizant NSF Program Division administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator.

B. Grant Award Conditions.

An NSF grant consists of: (1) the award letter, which includes any special provisions applicable to the grant and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable grant conditions, such as Grant General Conditions (NSF GC-1)* or Federal Demonstration Partnership Phase III (FDP) Terms and Conditions* and (5) any NSF brochure, program guide, announcement or other NSF issuance that may be incorporated by reference in the award letter. Electronic mail notification is the preferred way to transmit NSF grants to organizations that have electronic mail capabilities and have requested such notification from the Division of Grants and Agreements.

* These documents may be accessed electronically on the NSF Web site at: http://www.nsf.gov/. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone 301.947.2722 or by e-mail from pubs@nsf.gov.

Cooperative agreement awards also are administered in accordance with NSF Cooperative Agreement Terms and Conditions (CA-1). More comprehensive information on NSF Award Conditions is contained in the NSF Grant Policy Manual (GPM) Chapter II, (NSF 95-26) available electronically on the NSF Web site. The GPM also is available in paper copy by subscription from the Superintendent of Documents, Government Printing Office, Washington, DC 20402. The GPM may be ordered through the GPO Web site at: http://www.gpo.gov.

C. Reporting Requirements.

For all multi-year grants (including both standard and continuing grants), the PI must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period.

Within 90 days after expiration of a grant, the PI also is required to submit a final project report. Approximately 30 days before expiration, NSF will send a notice to remind the PI of the requirement to file the final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

NSF has implemented a new electronic project reporting system, available through FastLane, which permits electronic submission and updating of project reports, including information on: project participants (individual and organizational); activities and findings; publications; and, other specific products and contributions. Reports will continue to be required annually and after the expiration of the grant, but PIs will not need to re-enter information previously provided, either with the proposal or in earlier updates using the electronic system.

Effective October 1, 1998, PIs are required to use the new reporting format for annual and final project reports. PIs are strongly encouraged to submit reports electronically via FastLane. For those PIs who cannot access FastLane, paper copies of the new report formats may be obtained from the NSF Clearinghouse as specified above. NSF expects to require electronic submission of all annual and final project reports via FastLane beginning in October, 1999.

D. New Awardee Information.

If the submitting organization has never received an NSF award, it is recommended that the organizationís appropriate administrative officials become familiar with the policies and procedures in the NSF Grant Policy Manual which are applicable to most NSF awards. The "Prospective New Awardee Guide" (NSF 97-100) includes information on: Administration and Management Information; Accounting System Requirements and Auditing Information; and Payments to Organizations with Awards. This information will assist an organization in preparing documents that NSF requires to conduct administrative and financial reviews of an organization. The guide also serves as a means of highlighting the accountability requirements associated with Federal awards. This document is available electronically on the NSF's Web site at: http://www.nsf.gov/cgi-bin/getpub?nsf97100.

CONTACTS FOR ADDITIONAL INFORMATION

Questions should be addressed to David Epp at 703-306-1586, mail to: depp@nsf.gov.

The FUMAGES report is available on the JOI home page (http://joi-odp.org/default.html). The report of the Ocean-Bottom Seismometer Meeting held in July 1997 is also available on the JOI home page.

OTHER PROGRAMS OF INTEREST

The NSF Guide to Programs is a compilation of funding opportunities for research and education in science, mathematics, and engineering. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter. Beginning in fiscal year 1999, the NSF Guide to Programs only will be available electronically. Many NSF programs offer announcements concerning specific proposal requirements. To obtain additional information about these requirements, contact the appropriate NSF program offices listed in Appendix A of the GPG.

Any changes in NSF's fiscal year programs occurring after press time for the Guide to Programs will be announced in the NSF E-Bulletin, available electronically on the NSF Web site at: http://www.nsf.gov/. The direct URL for recent issues of the E-Bulletin is http://www.nsf.gov/home/ebulletin/. Subscribers can also sign up for NSF's Custom News Service to find out what funding opportunities are available.

ABOUT THE NATIONAL SCIENCE FOUNDATION

NSF funds research and education in most fields of science and engineering. Grantees are wholly responsible for conducting their project activities and preparing the results for publication. Thus, the Foundation does not assume responsibility for such findings or their interpretation.

NSF welcomes proposals on behalf of all qualified scientists, engineers and educators. The Foundation strongly encourages women, minorities and persons with disabilities to participate fully in its programs. In accordance with Federal statutes, regulations and NSF policies, no person on grounds of race, color, age, sex, national origin or disability shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NSF (some programs may have special requirements that limit eligibility).

Facilitation Awards for Scientists and Engineers with Disabilities provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. (For more information, see Section V.G.)

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 306-0090, FIRS at 1-800-877-8339.

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies needing information as part of the review process or in order to coordinate programs; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne Plimpton
Reports Clearance Officer
Division of Administrative Services
National Science Foundation
Arlington, VA 22230

YEAR 2000 REMINDER

In accordance with Important Notice No. 120 dated June 27, 1997, Subject: Year 2000 Computer Problem, NSF awardees are reminded of their responsibility to take appropriate actions to ensure that the NSF activity being supported is not adversely affected by the Year 2000 problem. Potentially affected items include: computer systems, databases, and equipment. The National Science Foundation should be notified if an awardee concludes that the Year 2000 will have a significant impact on its ability to carry out an NSF funded activity. Information concerning Year 2000 activities can be found on the NSF web site at http://www.nsf.gov/oirm/y2k/start.htm.

This program is described in the Catalog of Federal Domestic Assistance category 47.050